STATEMENT OF CONSIDERATIONS

REQUEST BY DELPHI AUTOMOTIVE SYSTEMS (DELPHI) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS TO INVENTIONS MADE UNDER COOPERATIVE AGREEMENT NUMBER DE-FC04-02AL67633, DOE WAIVER NO. W(A) 01-040.

The Petitioner, Delphi, a subcontractor to Electricore, Inc. (Electricore), has requested a waiver of all domestic and foreign patent rights to inventions that it may conceive or first reduce to practice in the course of work under Cooperative Agreement Number DE-FC04-02L67633 entitled "Lower Cost Wide Range Oxygen Sensor" with the U.S. Department of Energy (DOE).

The work to be done will be the development of a robust oxygen sensor for use in direct injection light duty diesel engines. The program goal is to create a low cost, wide range oxygen sensor compatible with high volume automotive use. Such sensors would be a critical component of advanced exhaust treatment systems to reduce emissions and particulates from diesel engines by at least 80%. The research and work to be performed under this Cooperative Agreement will not adversely impact public health, safety or welfare—on the contrary, the results of this research should lead to a substantial health benefit by aiding in the reduction of unhealthy emissions and particulates from the air.

The contract covers a period from December 1, 2001 through November 30, 2004 at a total cost to DOE of \$1,055,839. The money to be provided as follows: FY01 -- \$119,559; FY02 -- \$119,559; FY03 -- \$576,959; and FY04 -- \$359,321. Delphi's cost share to this work during the contract period will be approximately \$1,319,799. Although Electricore was the party that signed the Cooperative Agreement, Electricore will not be contributing any funds under this agreement. Electricore's entire cost share under this agreement is being provided by Delphi. Delphi is the only party in partnership with Electricore under this Cooperative Agreement. The government contribution will be under Budget & Reporting Code EE0503 funded by the Office of Advanced Automotive Technologies.

Delphi has had a continuing research and development effort in the field of automotive sensors for over 25 years—including a specific investment exceeding \$2 million annually for the last five years in the field of planar sensing technology. Delphi will continue to aggressively invest in planar sensing technologies at or exceeding this \$2 million annual level.

The Petitioner, Delphi, is the partner with and technical lead for Electricore under this Cooperative Agreement. Electricore is a non-profit organization, while Delphi is the world's largest original equipment manufacturer (OEM) automotive supplier. Delphi has a 25-year history in the design, integration and manufacturing of automotive sensors, as well as worldwide marketing capability to bring any product developed into the widest possible range of automotive use. The grant of this waiver will allow for swift and thorough commercialization and implementation of emissions sensing technology.

Electricore fully supports Delphi's request for waiver of rights to inventions first conceived or actually reduced to practice by Delphi under the auspices of this agreement. Electricore, while having Bayh-Dole rights in inventions arising under this Cooperative Agreement, has no interest in such rights and no staff or mechanism for requesting, obtaining, managing or utilizing such rights. Electricore has agreed to verify, in writing, that they have no objections to this waiver request.

The grant of this waiver will not decrease competition, cause undesirable market concentration, or place Delphi in a dominant market position. Exhaust sensors are a highly competitive and active field. Delphi has substantial competition in the exhaust sensing field from companies in Japan (Denso, NGK Spark Plug, NGK Insulators) and Germany (Robert Bosch). The granting of this waiver will allow Delphi to remain competitive with these foreign companies in this highly competitive market. Delphi is a U.S.-based multinational, headquartered in Troy, Michigan.

Delphi has agreed to abide by 35 U.S.C. §§ 202, 203 and 204, as well as the provisions of the Standard Patent Rights clause for an Advance Waiver. Additionally, Delphi (a U.S. company) has agreed to the provisions of the attached, modified U.S. Competitiveness Clause. Delphi agrees to make this condition binding on any assignee or licensee. Delphi will abide by the Export Control laws and will require its licensees, if any, to do the same. Delphi will expend such sums as may be required to maintain the necessary patent protection and provide incentive for commercial development of the invention.

Considering Petitioner's substantial prior research and prior and on-going contributions to field of emissions sensors, as well as its substantial manufacturing and marketing organization and experience, it is concluded that the grant of the requested waiver is most likely to achieve commercialization success and actual in-engine implementation on a global scale in the shortest possible time.

As such, upon evaluation of the Waiver Petition in view of the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver be granted.

Ann C. Durkis
Patent Attorney

DOE, Albuquerque Operations Office

Based on the foregoing Statement of Considerations and the representations of the attached Waiver Petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above and, therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the subcontract where, through such modification or extension, the purpose, scope or DOE cost of the subcontract has been substantially altered.

CONCURRENCE:

Robert Kirk

Director, Office of Advanced Automotive Technologies (EE-32)

25 King

Date: 47/02

APPROVAL:

Paul A. Gotylieb

Assistant General Counsel for Technology Transfer and Intellectual Property (GC-62)

Date: $(2^{-2} \cdot 0)$

DOE Headquarters Project Manager: Kenneth Howden